Message

From: Purucker, Tom [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP

(FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=6945277BF1F14A69933A6A58E036B298-PURUCKER, TOM]

Sent: 12/10/2018 4:29:12 PM

To: Henderson, Matt [/o=ExchangeLabs/ou=Exchange Administrative Group

(FYDIBOHF23SPDLT)/cn=Recipients/cn=f0fde6dfcbd947bdb4da3dba8801ac77-Henderson, Matt]

Subject: FW: Additional bee samples from 2016 planting related bee kill

From: Purucker, Tom

Sent: Monday, December 5, 2016 4:17 PM **To:** Johnson, Reed M. <johnson.5005@osu.edu>

Subject: RE: Additional bee samples from 2016 planting related bee kill

Hi Reed-

We ran them, they are available here:

https://docs.google.com/spreadsheets/d/1YVIj9NBigT-lg4HFSLi5PRfYsEFnZAD3sesCuhLt8Gk/edit#gid=1123442988
There is some context for the results with a couple of the other references that are available at the bottom of the sheet. Matt has been talking about running these again with somewhat better detection limits, I'll check in with him on that and let you know about any analytical improvements that might be possible for a rerun.

Best, Tom

From: Johnson, Reed M. [mailto:johnson.5005@osu.edu]

Sent: Monday, December 05, 2016 4:04 PM **To:** Purucker, Tom <Purucker.Tom@epa.gov>

Subject: RE: Additional bee samples from 2016 planting related bee kill

Hi Tom,

I just wanted to get back in touch with you about the neonicotinoid analysis of the various bee matrices. I just had a PhD student defend (not Rodney) and he put some real thought into the landscape aspect of the seed treatment dust question. I think we've got the makings of a really nice manuscript. Hopefully we will have a draft to you by the end of the year to look at.

In the meantime, however, the beekeeper who's dead bees you've got continues to call me to check on results for the bees I sent you. Any chance those samples will be run on the LC before the end of the year?

Thanks, Reed

From: Purucker, Tom [mailto:Purucker.Tom@epa.gov]

Sent: Tuesday, October 04, 2016 9:59 AM

To: Johnson, Reed M.

Subject: FW: Additional bee samples from 2016 planting related bee kill

Hi Reed-

Here is the response from Matthew – Donna will be using Bertha to run the analyses. Dead bees should be quantified this month.

best, Tom

From: Henderson, Matt

Sent: Tuesday, October 04, 2016 7:44 AM

To: Purucker, Tom < Purucker.Tom@epa.gov>; Glinski, Donna < Glinski.Donna@epa.gov>

Subject: Re: Additional bee samples from 2016 planting related bee kill

Tom,

Turbo controller repair has been approved by Adam -- just waiting on the RMS to send it to them -- 2 weeks out on Bertha. I got a 7K PM agreement with Thermo approved (PR) and am just waiting on them to schedule it with me -- for the other lc. Last contact with Thermo was Friday -- should be soon. I'm in OH til Thursday.

Μ

From: Purucker, Tom

Sent: Monday, October 3, 2016 4:58:40 PM **To:** Henderson, Matt; Glinski, Donna

Subject: FW: Additional bee samples from 2016 planting related bee kill

What do you all think- should Reed send dead bees to USDA for analysis? Can we give him a date for the lc back up and samples run?

thanks,

From: Johnson, Reed M. [mailto:johnson.5005@osu.edu]

Sent: Monday, October 03, 2016 4:49 PM **To:** Purucker, Tom <<u>Purucker.Tom@epa.gov</u>>

Subject: RE: Additional bee samples from 2016 planting related bee kill

Thanks Tom,

They don't call in "Highly Problematic Liquid Chromatography" for nothing! Lyle is really chomping at the bit on these bees. I've got duplicate samples I took that could be sent to USDA-AMS if you think it will be more than a few weeks.

Reed

From: Purucker, Tom

Sent: Monday, October 3, 2016 3:44 PM

To: Johnson, Reed M.

Subject: RE: Additional bee samples from 2016 planting related bee kill

Hi Reed-

More extractions queued but Ic still being repaired. I'll talk to Matthew on Thursday to get an update.

Tom

From: Johnson, Reed M. [mailto:johnson.5005@osu.edu]

Sent: Monday, October 03, 2016 2:56 PM **To:** Purucker, Tom <<u>Purucker.Tom@epa.gov</u>>

Subject: RE: Additional bee samples from 2016 planting related bee kill

Hi Tom,

Lyle Keller (the beekeeper who experienced the bee kill this spring) called me again. Any word on the dead bee concentrations? Hopefully all is going more smoothly this fall!

Reed

From: Purucker, Tom [mailto:Purucker.Tom@epa.gov]

Sent: Tuesday, August 30, 2016 2:48 PM

To: Johnson, Reed M.

Subject: RE: Additional bee samples from 2016 planting related bee kill

Hi Reed-

Sorry for the delays, the lab is not my thing so I just periodically ask for an update. There have been some distractions as Donna has just finished her written and oral comps, but almost all the dead bee samples have been extracted and are ready to run. However, there still has not been any actual quantification of these samples and there is now a mechanical issue with the lcms that Matthew is working on fixing. The extracted samples will take about a week to run once the machine is repaired so if all goes well then the lc will be back up this week and the sample will be finished next week. However, not everything has gone smoothly this summer...

Apologies, I'll provide an update next week,

Tom

From: Johnson, Reed M. [mailto:johnson.5005@osu.edu]

Sent: Tuesday, August 30, 2016 2:01 PM **To:** Purucker, Tom < <u>Purucker.Tom@epa.gov</u>>

Subject: RE: Additional bee samples from 2016 planting related bee kill

Hi Tom,

Hope your summer has gone well. I just got a call from Lyle Keller, the beekeeper here in Ohio that suffered a planting-related bee kill this spring. He sent off some oak flowers and alfalfa from around his farm for testing at USDA-AMS. The oak flowers contained 29 ppb clothianidin . . . not enough to kill bees outright, but suggestive that high levels of seed treatment insecticides were in the environment. I was just wondering if you had any results from the dead bees we sent you back in early June that could shed light on this?

And we are working on the corn dust manuscript again after a summer of field work. We'll send you a draft soon.

Thanks, Reed

From: Purucker, Tom [mailto:Purucker.Tom@epa.gov]

Sent: Tuesday, May 31, 2016 12:20 PM

To: Johnson, Reed M.

Subject: RE: Additional bee samples from 2016 planting related bee kill

Yes, I just placed a lab order to run all the dead bees so go ahead and send them on. Donna has been working extractions and will start analyses next week. As a follow-up to the last email- can you also confirm with your financial people that Ohio State has been paid for all the invoices they have submitted?

Tom

From: Johnson, Reed M. [mailto:johnson.5005@osu.edu]

Sent: Tuesday, May 31, 2016 12:17 PM

To: Purucker, Tom < Purucker. Tom@epa.gov>

Subject: Additional bee samples from 2016 planting related bee kill

Hi Tom,

Last week I went out and collected a batch of bees from a big commercial beekeeper over near Findlay, Ohio that experienced a very clear bee kill event related to corn planting in his area. Are you still working on processing the dead bees from last year? Is there any chance I could send you these 4 samples of dead bees to be included with your analyses?

Reed

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